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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,058	02/20/2004	Chung-Wen Ko	250122-1240	6848
24504 7590 04/03/2007 THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP 100 GALLERIA PARKWAY, NW STE 1750 ATLANTA, GA 30339-5948			EXAMINER LIE, ANGELA M	
			ART UNIT 2163	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			04/03/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/784,058

Applicant(s)

KO, CHUNG-WEN

Examiner

Angela M. Lie

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

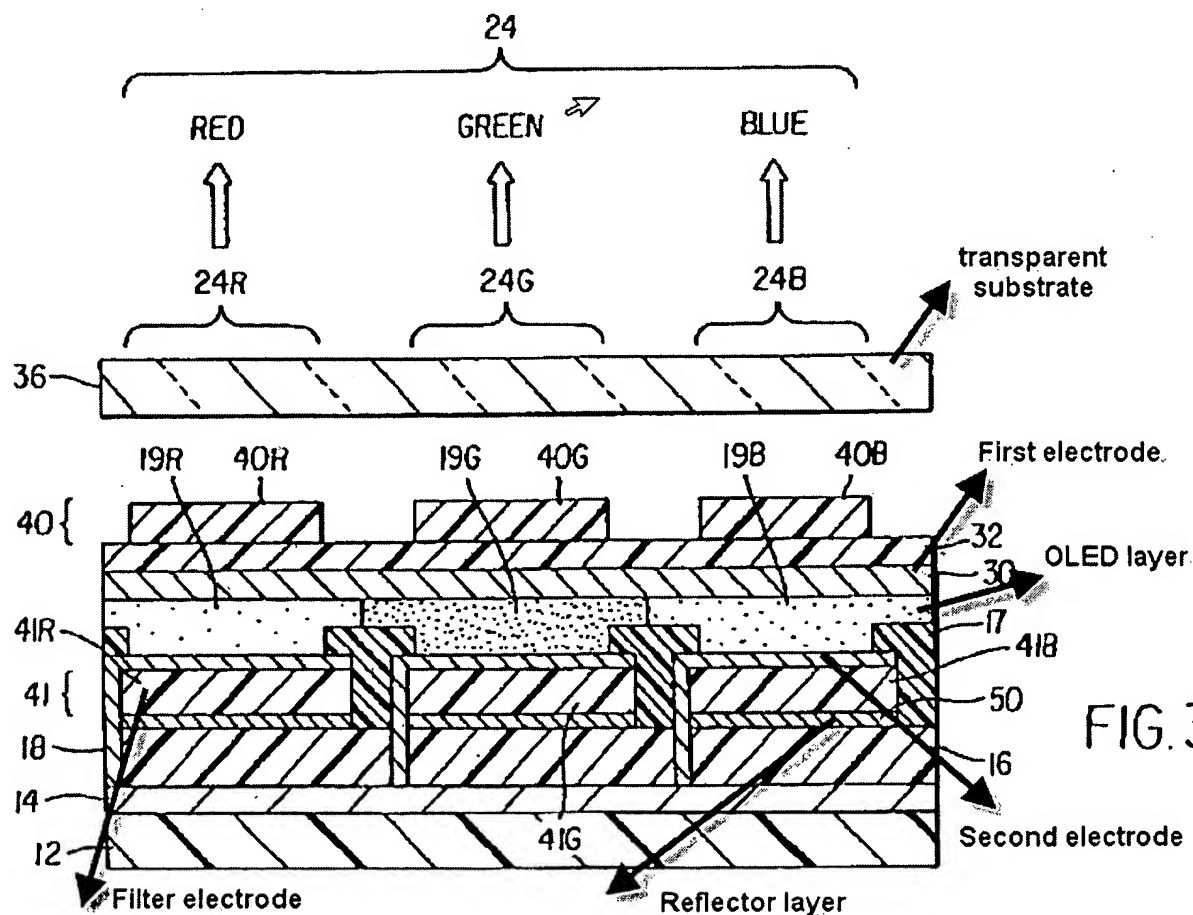
2. **Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cok (US Patent No. 6911772) in the view of Richard (US Patent No. 6759945).**

As to claims 1 and 9, Cok discloses an organic electroluminescent display, comprising: an organic electroluminescent display (OLED) panel (Figure 3, elements 36, 40, 30, 19 and 18); a reflective sheet (Figure 3, element 50); and a brightness regulating film for light transmission placed between the organic electroluminescent display panel and the reflective sheet (Figure 3, element 41). Cok, however does not teach the brightness regulating film being made of electro-chromic or liquid crystal capable for controlling light transmission thereon by adjusting current applied thereto. Richard teaches a variable transmittance device comprising a super-twisted nematic (STN) liquid crystal cell connected to the adjustable voltage source and photo sensor (column 3, lines 33-37 and lines 48-57), so that transitivity of STN can be adjusted based on detected light. It would have been obvious to one of the ordinary skill in the art during the time the invention was made to incorporate Richard's light adjustment means into the display as taught by Cok (i.e. replace the existing filter 41) because brightness

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regulating means taught by Richard increase the contrast of the display independently of the ambient light, furthermore the brightness regulating mechanism allow for a fast response, good viewing angle and high tolerance of temperatures (column 3, lines 1-10).

Note regarding claim 9: a photo sensor to detect light intensity of the environment is necessary to the device as described above. Richard teaches two photo sensors connected to the STN, wherein one of those sensor is used to detect ambient light.



As to claim 2, Cok discloses the display wherein the organic electroluminescent display panel further comprises: a transparent substrate (Figure 3, element 36); a first transparent electrode (Figure 3, element 30) over the transparent substrate; a light-emitting layer (Figure 3, element 19) over the first transparent electrode; and a second transparent electrode (Figure 3, element 18) over the light emitting layer.

As to claim 3, Cok discloses the display wherein the light emitting layer is an organic electroluminescent film (column 10, line 65).

As to claim 4, Cok discloses the display wherein the brightness regulating film is an optical slit to control light from the environment (column 4, lines 32-36).

As to claims 5 and 6, Cok teaches all the limitations disclosed in claim 4 except for the brightness regulating film being made of electro-chromic or liquid crystal capable for controlling light transmission thereon by adjusting current applied thereto. Richard teaches a variable transmittance device comprising a super-twisted nematic (STN) liquid crystal cell connected to the adjustable voltage source and photo sensor, so that transitivity of STN can be adjusted based on detected light. It would have been obvious to one of the ordinary skill in the art during the time the invention was made to incorporate Richard's light adjustment means into the display as taught by Cok (i.e. replace the existing filter 41) because brightness regulating means taught by Richard increase the contrast of the display independently of the ambient light, furthermore the brightness regulating mechanism allow for a fast response, good viewing angle and high tolerance of temperatures (column 3, lines 1-10).

Note regarding claim 6, a photo sensor to detect light intensity of the environment is necessary to the device as described above. Richard teaches two photo sensors connected to the STN, wherein one of those sensor is used to detect ambient light..

As to claim 7, Richard teaches the device wherein the brightness regulating film adjusts the light transmission intensity from the environment according to a light intensity of the environment detected by the photo sensor (column 3, lines 33-57).

As to claim 8, Cok teaches all the limitations presented in claim 1 except for the brightness regulating film adjusting a light-transmitting mode thereof by controlling current intensity applied thereon according to a light intensity of the environment as detected by the photo sensor. Richard teaches a super-twisted nematic liquid crystal connected to the photo sensors and adjustable voltage supply. As the light detected by photo sensors changes control voltage is also changed and this causes change in the STN liquid crystal transitivity (reflectance). It would have been obvious to one of the ordinary skill in the art during the time the invention was made to incorporate Richard's light adjustment means into the display as taught by Cok (i.e. replace the existing filter 41) because brightness regulating means taught by Richard increase the contrast of the display independently of the ambient light, furthermore the brightness regulating mechanism allow fast response, good viewing angle and high tolerance of temperatures (column 3, lines 1-10).

Response to Arguments

3. Applicant's arguments filed January 1st, 2007 have been fully considered but they are not persuasive.

4. With respect to the applicant's assertion on page 6, third paragraph stating that Cok does not teach an adjustable brightness regulating film for controlling light transmission placed between the organic electroluminescent display panel and the reflective sheet by applying an adjusting current, the examiner agrees that Cok does not teach this limitation therefore it is an obvious type rejection i.e. 35 U.S.C 103(a), not an anticipation.

5. Furthermore, the applicant argues on page 7, that Richard's regulating film is related to a mirror in a vehicle but not a display of self-luminance capability, the examiner agrees that Richard does not teach organic electroluminescent display, however he teaches a display which could be passive or active matrix (column 4, lines 57-61) and further the examiner would like to note that Richard does not need to teach the entire structure of organic electroluminescent display because it is not anticipation type of rejection but obviousness, wherein Richard is a secondary reference. Moreover Richard teaches a structure of a display, for instance two transparent electrodes. It is also important to note that the examiner did not replace the elements of the display that produce a picture, instead the replaced element is the one that can adjust glare i.e. filter, in order to improve the picture quality.

6. On the following page, the applicant asserts that there would be no motivation to modify Cok's reference because his invention was already complete and function in

itself, the examiner agrees that Cok's apparatus did not lack any parts in order to operate successfully, however as examiner mentioned in previous office actions, a lot of devices are modified not because they do not operate, but because there is always place for possible improvement.

7. Furthermore, the applicant alleges that Cok and Richard are not analogous arts and therefore cannot be combined, the examiner respectfully disagrees. The examiner maintains that the filter as taught by Richard can be used with Cok's organic display, because the filter is meant to be used for a display. Further the filter would be used for the same purpose in both inventions, and Richard's art also does not teach away from installing the filter in an organic electroluminescent display.

The Prior Art

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Garner et al (US Publication 20040217702) disclose a light extraction design for organic light emitting diodes.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

10. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Inquiry

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela M. Lie whose telephone number is 571-272-8445. The examiner can normally be reached on M-F.

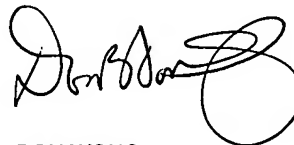
12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Angela M Lie



DON WONG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100